

PLAINTIFF ENTEGRIS, INC.'S RESPONSIVE CLAIM CONSTRUCTION BRIEF

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I. INTRODUCTION

On July 30, 2010, the parties served and filed their respective opening submissions on claim construction. In accordance with the Court's July 20, 2010 Electronic Order setting the schedule for claim construction briefing, Entegris respectfully submits this response to Pall's Opening Memorandum on Claim Construction (D.I. 190, hereinafter "opening memorandum").

II. OVERVIEW

Pall's opening memorandum reflects an approach to claim construction dictated by Pall's desired invalidity defense. This approach is contrary to well-settled law. Indeed, Pall's gratuitous preview of its invalidity defense is irrelevant to claim construction.¹ Moreover, the defense is unsupportable in view of the widespread market success of the technology. Prior to the claimed inventions, filter change-out in semiconductor manufacturing processes suffered from a number of problems, including, for example: (i) long change-out times, which resulted in lengthy shutdowns of manufacturing equipment (D.I. 9 at ¶4; D.I. 6 at ¶¶9-10); (ii) the exposure of workers to hazardous fluids and fumes (D.I. 6 at ¶11); and (iii) the possibility of hazardous chemical spills (D.I. 60 at 68:21-69:13; D.I. 6 at ¶11). The claimed inventions solved these long-felt and previously unresolved problems (D.I. 9 at ¶6; D.I. 60 at 78:16-79:30). And, customers were so impressed by the patented technology that they forced Entegris to offer it as a stand-alone product (D.I. 36 Ex. 3 at ¶7-8).

Driven by its need to salvage its invalidity defense, Pall proposes claim constructions that ignore the claim terms themselves and the intrinsic record. For example, where claim limitations

¹ Notably, Pall will need to show by clear and convincing evidence that the claims of the patents-in-suit are invalid. *WMS Gaming Inc. v. Int'l Game Tech.*, 184 F.3d 1339, 1355 (Fed. Cir. 1999) ("Because a patent is presumed to be valid the party asserting invalidity has the burden of showing invalidity by clear and convincing evidence.") (citation omitted). This is different from the preliminary injunction context where the burden was on Entegris. *See, e.g., Nat'l Steel Car, Ltd. v. Canadian Pac. Ry., Ltd.*, 357 F.3d 1319, 1324-25 (Fed. Cir. 2004).

are not present in Pall’s prior art, Pall urges the Court to ignore these limitations altogether, suggesting that certain claim terms are “not an effective limitation” in order to include within the scope of the claims prior art that suffers from the very problems that the claimed inventions solved. Pall’s invalidity theories notwithstanding, such an approach to claim construction is impermissible. Instead, each claim term must be construed consistent with the intrinsic record, and should be afforded its ordinary and customary meaning wherever consistent with the intrinsic record.

In sharp contrast to Pall’s approach, Entegris’s proposed constructions are supported by the intrinsic evidence, including the plain language of the claims themselves, the patents’ specifications, and the prosecution histories. Additionally, extrinsic evidence -- the declaration of Dr. Samir Nayfeh and contemporary dictionaries -- bolsters Entegris’s constructions. Therefore, the Court should adopt Entegris’s proposed constructions and reject Pall’s proposals.

III. PALL’S LITIGATION-INSPIRED CLAIM CONSTRUCTION ARGUMENTS ARE UNSUPPORTED AND INCORRECT

A. “Fluid Processing Module”

The term “fluid processing module” appears in asserted claims 1, 2 and 9 of the ‘907 patent. The parties’ dispute regarding the term “fluid processing module” is set forth below:

Claim Language	Entegris’s Proposed Construction	Pall’s Proposed Construction
“fluid processing module”	fluid separation module	fluid processing module

Entegris’s proposed construction relies upon the intrinsic record. Pall’s proposed construction ignores the patent’s specification and instead impermissibly relies on the prior art and statements by the Examiner during prosecution. As such, Pall’s proposed construction should be rejected.

1. Pall's reliance on the Sumitomo references is improper

Pall's proposed construction of the "fluid processing module" is remarkable because it does not cite the specification of the '907 patent at all. Instead, to the exclusion of the patentees' own words, Pall relies on prior art -- the Sumitomo references -- which Pall believes (mistakenly) invalidates the asserted claims. Ignoring the intrinsic record altogether, Pall purports to support its construction, stating:

The Sumitomo references concern humidification modules for oxygen generators -- these humidification modules *do not contain filtration elements*. The Sumitomo humidification modules humidify the oxygen generated and thus "process the fluid (gas)" and are thus "fluid processing modules" (D.I. 190 at 12)² (emphasis added).

Pall's approach violates basic principles of claim construction. *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1584-85 (Fed. Cir. 1996).

Reliance on prior art during the claim construction phase "is unnecessary, and indeed improper, when the disputed terms can be understood from a careful reading of the public record." *Vitronics Corp.*, 90 F.3d at 1584. And, prior art cannot be relied upon "to vary claim terms from how they are defined, even implicitly, in the specification or file history." *Id.* at 1584-85.

Here, the specification discusses two modules -- a fluid separation module that processes fluids to remove contaminants and a connector apparatus that is non-working and processes nothing. As discussed in the specification, fluid separation modules are used to remove contaminants from semiconductor process fluids ('907 patent at 1:13-16). When the delivery system is going to be used to dispense a different liquid, the system must first be flushed ('907 patent at 2:41-44). While the system is being flushed, a module must be installed in the system

² Unless otherwise indicated, docket entry citations are to *Entegris, Inc. v. Pall Corp.*, Civil Action No. 03-CV-10392-GAO.

to complete the flow path. But, the module “must be replaced after flushing since it contains retentate from the initial liquid composition removed from the system during the flushing step” (‘907 patent at 2:49-52). Thus, because separation modules are expensive, using a separation module for this purpose is undesirable (‘907 patent at 2:52-54).

Instead, a connector apparatus, which does not include a separation element, can be used (‘907 patent at 3:36-45, 62-65). “The . . . connector apparatus . . . can be substituted for a separation module in a system for dispensing a filtered fluid composition The connector apparatus is *nonworking* in that it performs no function other than transferring fluid therethrough” (‘907 patent at 2:64-3:4) (emphasis added). In sum, the connector apparatus processes nothing. The only ‘fluid processing’ described in the ‘907 patent is “fluid separation” (D.I. 193 at ¶21). The specification contains absolutely no reference to humidifiers of the type disclosed in the Sumitomo references, as Pall suggests. Indeed, nothing in the intrinsic record supports Pall’s construction.

Nor does this Court’s earlier decision support Pall’s construction. In fact, the Court has not construed the term “fluid processing module.” Instead, the Court noted that important distinctions could be made between the claims of the ‘907 patent and the Sumitomo references, stating that those issues need not be resolved at the preliminary injunction phase (D.I. 106 at 10). At no time did the Court adopt a construction as urged by Pall that runs so contrary to the intrinsic record.

2. Pall’s reliance on the Examiner’s statements is improper

Pall asserts as dispositive the Examiner’s statement in a restriction requirement that “[t]he manifold of group II is not limited to a system including a filter, but to a fluid processing module” (D.I. 190 at 13). However, the Examiner was incorrect. Group I contained claims including “a connector apparatus” (D.I. 192 Ex. F at ME070423-25). Group II contained claims

including a fluid processing module, which the specification describes as containing a separation element or filter (D.I. 192 Ex. F at ME070493-94).

More importantly, as Pall acknowledged, “an Examiner’s statement itself will not limit a claim; for a claim to be restricted during prosecution, the patent applicant must clearly restrict the claim scope, either through amendment or through an argument clearly disavowing certain claim scope” (D.I. 190 at 5). Here, the applicants did not make any amendments or arguments in electing the group of claims to pursue. Therefore, the Examiner’s (mistaken) statement is irrelevant. *3M Innovative Props. Co. v. Avery Dennison Corp.*, 350 F.3d 1365, 1373-74 (Fed. Cir. 2003) (“An applicant’s silence in response to an examiner’s characterization of a claim does not reflect the applicant’s clear and unmistakable acquiescence to that characterization if the claim is eventually allowed on grounds unrelated to the examiner’s un rebutted characterization.”).

Pall’s arguments regarding Mailleux -- an alleged prior art reference cited by the Examiner -- fare no better. In particular, during prosecution, Entegris stated that Mailleux “does not recite a manifold configured to receive a fluid-processing module as described in the present invention” (D.I. 190 at 13). And, indeed, Mailleux does not appear to show a fluid processing module like that claimed in the ‘907 patent. It shows, instead, a multiple fluid connector. There is no indication that Mailleux is related to filtration technology or that it includes a fluid separation module. Contrary to Pall’s suggestion (D.I. 190 at 13), nothing in Entegris’s response to the Examiner’s reference to Mailleux expands the fluid processing module beyond the fluid separation module described in the specification.

In sum, Entegris’s proposed construction is supported by the intrinsic record and is consistent with the understanding of one of ordinary skill in the art at the time of the invention

(D.I. 193 at ¶23). Pall has not provided any reason to depart from the patent’s specification in construing this term. Thus, the term “fluid processing module” should be construed to mean “fluid separation module.”

B. “Vent Position”, “Gas Vent” and “At Least One Connector That Is A Gas Vent From The Housing”

The term “vent position” appears in asserted claim 2 of the ‘907 patent. The term “gas vent” appears in all asserted claims of the ‘667 and ‘424 patents. The term “at least one connector that is a gas vent from the housing” appears in asserted claims 1, 2, 5, 14, 15 and 17 of the ‘424 patent. The parties’ disputes regarding these terms are set forth below:

Claim Language	Entegris’s Proposed Construction	Pall’s Proposed Construction
“vent position”	a third connector on the fluid processing module which has the primary purpose of venting substantially all gas from the module	a position on the fluid processing module which has the primary purpose of venting gas from the module
“gas vent”	a connector which has the primary purpose of venting substantially all gas from the module	Pall acquiesces to the Court’s construction in that a “gas vent” is a gas vent which has the primary purpose of venting gas from the filter module.
“at least one connector that is a gas vent from the housing”	at least one connector of the separation module performs the primary function of venting substantially all gas from the interior of the housing	At least one connector of the separation module is a gas vent. “Gas vent” has been construed by the Court.

Entegris’s proposed constructions are supported by the patents’ intrinsic records, and (despite Pall’s erroneous protestations) consistent with this Court’s prior constructions in this case. Pall’s proposed constructions ignore the intrinsic record in an effort to impermissibly broaden the claims.

1. The terms “vent position” and “gas vent” each refer to a connector

The “vent position” and “gas vent” of the asserted claims of the ‘907, ‘667, and ‘424 patents are connectors. The asserted claims of the ‘667 and ‘424 patents expressly state that the “gas vent” is a connector (*See* D.I. 193 at ¶28). Thus, Pall cannot reasonably dispute that the “gas vent” claimed in the ‘667 and ‘424 patents is a connector.

Moreover, the intrinsic record confirms that the “vent position” claimed in the ‘907 patent is also a connector. Pall’s reliance on *Agfa Corp. v. Creo Prods. Inc.*, 451 F.3d 1366 (Fed. Cir. 2006), to argue otherwise is misplaced. In *Agfa*, neither the claim language nor the disclosure of the asserted patents suggested that the term in dispute, *stack*, was limited to a *horizontal* stack, as the patentee argued. *Id.* at 1376. In contrast, here the specification fully describes the vent as a connector. In particular, it describes a fluid separation module having “three female fluid **connectors** 21 on the top end of the module” (‘907 patent at 4:37-38) (emphasis added). “The **connectors** 21 are spaced apart, parallel and exclusive to each other, so as to enable them to sealingly engage in quick-connect fashion to mating male connectors 25” (‘907 patent at 4:44-47).

As stated by Dr. Nayfeh, “[o]ne of ordinary skill in the art at the time of the invention would [] interpret the ‘vent position’ to refer to the connector described in the specification” (D.I. 193 at 26-28). Thus, consistent with the patents’ specification and the understanding of a person of ordinary skill in the art at the time of the invention, each of the fluid inlet, the fluid outlet, and the vent position are connectors.

The term “third” is used to distinguish the “vent position” from the first connector -- the “fluid inlet of said fluid processing module” -- and the second connector -- the “fluid outlet of said fluid processing module.” As discussed above, the fluid processing module described in the ‘907 patent includes three connectors that are “spaced apart, parallel and exclusive to each other”

(4:44-46). The term “third” is used in Entegris’s proposed construction simply to distinguish one of the three connectors from the other two. “The use of the terms ‘first’ and ‘second’ is a common patent-law convention to distinguish between repeated instances of an element or limitation.” *3M Innovative Props. Co.*, 350 F.3d at 1371. Given Pall’s argument (now rejected by the Court) that the gas vent is the same as the outlet (06-cv-10601, D.I. 41 at 8-9) the distinction is particularly important to maintain.

2. The disputed terms require venting substantially all gas from the module

Contrary to Pall’s suggestion (D.I. 190 at 16, 24-25), Entegris’s proposed constructions find ample support in the patents’ specifications and are consistent with the Court’s previous construction of gas vent.

The patents are clear that the gas vent must remove substantially all of the gas from the module (*e.g.*, ‘907 patent at 4:66-67 & 6:23-32). Indeed, all descriptions of the gas vent in the patents show removal of all air and microbubbles, which are considered contaminants that must be eliminated from the fluids used. *Id.* Additionally, as stated by Dr. Nayfeh, Entegris’s proposed constructions are consistent with the understanding of a person of ordinary skill in the art at the time of the invention (D.I. 193 at ¶¶24-24).

The Court previously addressed the issue of whether or not the gas vent was exclusive of the inlet and the outlet because, at the time, Pall argued that the gas vent was the outlet connector (06-cv-10601 D.I. 41 at 8-9). The Court rejected Pall’s argument as is reflected in Entegris’s proposed construction, which uses the term “third” connector. The Court did not address whether these claim elements require that substantially all gas be vented from the separation module. They do, as is clear from the intrinsic record. Entegris’s proposed constructions are not inconsistent with the Court’s previous findings in that regard. Thus, the terms “vent position”,

“gas vent”, and “at least one connector that is a gas vent from the housing” should be construed as set forth in Entegris’s proposed constructions above.

C. “Dispense Pump”

The term “dispense pump” appears in asserted claims 1 and 18 of the ‘667 patent. The parties’ dispute regarding the term “dispense pump” is set forth below:

Claim Language	Entegris’s Proposed Construction	Pall’s Proposed Construction
“dispense pump”	a pump used to dispense in metered portions a fluid onto a substrate, such as a semiconductor wafer	a pump used to dispense a fluid

As discussed in Entegris’s opening memorandum, Entegris’s proposed construction is supported by (i) the intrinsic record; (ii) contemporaneous dictionary definitions; (iii) the doctrine of claim differentiation; and (iv) the understanding of a person of ordinary skill in the art at the time of the invention (D.I. 191 at 20-21). Pall’s proposed construction ignores these proper sources for claim construction in an effort to impermissibly broaden the claims.

A dispense pump dispenses metered portions of fluids at certain times during an operating cycle. Such an operation is described in detail in the ‘667 patent. *See* 6:14-47. The lengthy description in the specification sets forth the on-then-off operation of the claimed dispense pump. In this regard, Pall’s proposal is unsupportable because it would include a continuous flow pump, which is contrary to the intermittent action disclosed in the specification. As Dr. Nayfeh explained: “It would not make sense for the dispense pump of the fluid processing system described and claimed in the ‘667 patent to dispense fluids in a continuous manner” (D.I. 193 at ¶39). Dr. Nayfeh confirmed that the description in the patent’s

specification is consistent with the understanding of a person of ordinary skill in the art at the time of the invention (D.I. 193 at ¶¶38-39).

Moreover, Entegris's proposed construction is supported by the plain meaning of the claims. In particular, independent claim 14 sets forth "a fluid pump apparatus having a fluid inlet and a fluid outlet," while its dependent claim 18 states "the pump apparatus comprises a dispense pump for dispensing process fluids onto a semiconductor wafer." Thus, pursuant to the doctrine of claim differentiation, the "dispense pump" is something more specific than a fluid pump apparatus. *Tandon Corp. v. U.S. Int'l Trade Comm'n*, 831 F.2d 1017, 1023 (Fed. Cir. 1987) ("There is presumed to be a difference in meaning and scope when different words or phrases are used in separate claims.").

Relying again on *Agfa*, Pall argues that this claim term "is readily understood" and that its proposed construction "is in accord with the plain meaning of the term" (D.I. 190 at 16). But, Pall's reliance on *Agfa* in this regard is again misplaced. In *Agfa*, the Court consulted a dictionary to ensure that the widely accepted meaning it was about to apply was consistent with that of contemporaneous dictionaries. *Agfa*, 451 F.3d at 1376. Here, contemporaneous dictionaries support Entegris's proposed construction -- not Pall's. See D.I. 191 at 21 ("contemporaneous dictionaries at the time of the invention defined 'dispense' as 'to deal out in parts or portions'"); D.I. 192 Ex. K at 536-37.

Contrary to Pall's assertion, its proposed construction is not consistent with the term's plain meaning (as evidenced by contemporaneous dictionaries, the specification, and the understanding of a person of ordinary skill in the art at the time of the invention). Thus, Entegris's proposed construction should be adopted by the Court. The term "dispense pump"

should be construed to mean “a pump used to dispense in metered portions a fluid onto a substrate, such as a semiconductor wafer.”

D. “Disposable”

The term “disposable” appears in all asserted claims of the ‘667 patent and asserted claims 7, 9 and 11-13 of the ‘424 patent. The parties’ dispute regarding the term “disposable” is set forth below:

Claim Language	Entegris’s Proposed Construction	Pall’s Proposed Construction
“disposable”	“Disposable” means that the module is installed and removed as a unit and can be disposed of after removal. When the separation element within the module needs replacement, the entire module is removed from the assembly and disposed of.	The term “disposable” is not an effective limitation. Pall agrees with the Court when it found: “I conclude that the word ‘disposable’ does not breathe life or meaning into claim 2, but is rather merely a statement of what might be typically more desirable as a feature of the fluid separation module.”

Entegris’s proposed construction is consistent with (i) an express definition set forth by the patentees; (ii) this Court’s previous construction of the term “disposable fluid separation module”; (iii) the understanding of a person of ordinary skill in the art at the time of the invention; and (iv) controlling authorities. Pall’s proposed construction misstates the law, ignores the express language of the claims, and impermissibly seeks to broaden the scope of the claims to ensnare the prior art -- prior art that suffers from the very problems the patents-in-suit overcame.

1. No law supports Pall's proposed construction

Pall does not cite any case law supporting its argument that “[t]he term ‘disposable’ is not an effective limitation.” That is because there is none -- no law supports Pall's position. In its opening memorandum, Pall argues:

neither the Patent Office nor Entegris relied on the ‘disposable’ requirement as a patentable feature. The configuration and number of connectors on the module are the significant considerations, not whether, once the filter module is removed from the manifold, some part of the module is reused (D.I. 190 at 19).

But this proposed dissection of a claim into “patentable feature[s]” or “significant considerations” while others are “not an effective limitation” robs the patentees of their own words and deprives the patentees of the ability to particularly point out and distinctly claim their invention. Under Pall's approach, an accused infringer picks-and-chooses “effective” terms versus “non-effective” terms to manufacture its defenses. This violates the most basic principles of patent law. Rather, it is the claims of a patent that define the invention to which the patentee is entitled the right to exclude. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005). Here the patentees claimed a ***disposable*** fluid separation module, and they defined that term in the specification. Under such circumstances, the term cannot be ignored. *See Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1248 (Fed. Cir. 1998).

2. The patentees expressly defined “disposable fluid separation module”

The ‘667 and ‘424 patents define a ***disposable*** fluid separation module as one “in which the separation element is permanently attached to the housing, [and] which also contains appropriate fluid connections to the rest of the fluid processing system, to form an integrated module” (‘667 patent at 1:47-2:35 and ‘424 patent at 1:50-2:37). The module “is referred to as a ***disposable*** module, since ***the whole module is removed and disposed of*** whenever the separation element requires replacement regardless of what connector design is employed” (‘667 patent at

2:13-16 and ‘424 patent at 2:16-19) (emphasis added). The disposable fluid separation module is disposed of after use, because the separation element is permanently attached to the housing (‘667 patent at 2:1-16 and ‘424 patent at 2:4-19).

Additionally, in the ‘424 patent, the patentees sometimes claimed “a separation module” and other times claimed “a *disposable* fluid separation module” (emphasis added) (Compare claim 1 with claim 7). The use of different words or phrases in different claims creates a presumption that there is a difference in the meaning and scope of the claims. *Tandon Corp.*, 831 F.2d at 1023. Based on the patentees’ different word choice, and when read in conjunction with the patents’ specifications, it is clear that the term “disposable” imparts significant meaning to the claims. Pall’s argument that “disposable” is not an effective limitation lacks merit.

3. The Court previously construed “a disposable fluid separation module” consistent with Entegris’s proposed construction of “disposable”

The Court acknowledged the patentees’ express definition of the term “disposable” during the preliminary injunction proceedings regarding the ‘770 patent. Consistent with Entegris’s proposed construction above, the Court construed “a disposable fluid separation module” as follows:

The fluid separation apparatus in claim 3 includes a separation module that is installed and removed as a unit and can be disposed of after removal. Thus, when the separation element requires replacement, *the filter (including the housing)* is removed from the apparatus and disposed of.

(D.I. 66 at 6) (emphasis added). Thus, the Court’s prior construction supports Entegris’s proposal.

4. Entegris’s proposed construction is consistent with the understanding of a person of ordinary skill in the art at the time of the invention

Moreover, as Dr. Nayfeh explained, Entegris’s proposed construction is also consistent with the understanding of a person of ordinary skill in the art at the time of the invention

(D.I. 193 at ¶¶42-49). “One of ordinary skill in the art would recognize that the disposable nature of the separation module is important to solve the problems of reducing spillage, exposure and contamination that the inventors of the ‘667 and ‘424 patents were addressing” (D.I. 193 at ¶47). Also, the patents’ specifications differentiate between fluid separation devices with a replaceable separation element, “and those in which the separation element is attached to the housing such that the module as a whole -- housing and separation element as an integrated module -- is the replaceable component” (D.I. 193 at ¶48).

Thus, the term “disposable” should be construed as proposed by Entegris to mean “that the module is installed and removed as a unit and can be disposed of after removal. When the separation element within the module needs replacement, the entire module is removed from the assembly and disposed of.”

E. “Quick-Connect Manifold”

The term “quick-connect manifold” appears in all asserted claims of the ‘667 patent. The parties’ dispute regarding the term “quick-connect manifold” is set forth below:

Claim Language	Entegris’s Proposed Construction	Pall’s Proposed Construction
“quick-connect manifold”	a manifold assembly for quick connection and disconnection of a disposable fluid separation module	A manifold assembly that allows a module to be connected quickly and easily to the fluid processing system. This quick connect engagement may be accomplished in a somewhat sequential arrangement. <i>See</i> Col. 2, ll. 35-47, col. 5, l. 62-col. 6, l. 4.

Entegris’s proposed construction is consistent with (i) the plain and ordinary meaning of the claims’ terms; (ii) the intrinsic record; (iii) the Court’s previous opinions; (iv) Pall’s previous

arguments, including those of Pall's expert -- Dr. Igor Paul; and (v) the understanding of a person of ordinary skill in the art at the time of the invention. Pall's arguments contradict its own previous statements, misapply the law, and seek to improperly read negative limitations into the claims.

1. The quick-connect manifold is a manifold for quick connection and disconnection

The '667 patent is directed to a quick-connect manifold for the quick connection and disconnection of a disposable fluid separation module. The claims of the '667 patent address the problems of long change out time and hazardous spillage of noxious chemicals when replacing a disposable fluid separation module (i.e., the disconnection of the module to be replaced, and the connection of the replacement module). That the asserted claims required both disconnection and connection was in fact previously agreed by the parties. In particular, in his May 16, 2006 declaration, Dr. Igor Paul (Pall's expert) stated that a person of ordinary skill in the art "would interpret the independent claims 1, 2, 14 and 25 [of the '667 patent] as encompassing a manifold assembly for quick connection *and disconnection* of a fluid separation module having at least three connectors" (06-cv-10601, D.I. 19 Ex. 5 at ¶51) (emphasis added).

This uncontroversial position was adopted by the Court in its construction of claim 2 of the '667 patent. The Court stated that "[t]he movement of the receptor relative to the fluid connector member also *disengages* these connectors" (06-cv-10601, D.I. 41 at 8) (emphasis added). Thus, both parties and the Court agreed that the "quick-connect manifold" is "a manifold assembly for quick connection and disconnection." Pall's current about face is unsupportable.

2. The quick-connect manifold is a manifold for quick connection and disconnection of a disposable fluid separation module

Pall incorrectly asserts that Entegris’s proposed construction reads extraneous limitations into the term quick-connect manifold by requiring that the manifold be for connection and disconnection of a disposable separation module (D.I. 190 at 21). To the contrary, it is Pall’s construction that is flawed -- ignoring the claim language itself. Each independent claim of the ‘667 patent claims a quick-connect manifold for “a *disposable* fluid separation module” (emphasis added). The law supports Entegris’s proposed construction.

In *Pause Tech. v. TiVo Inc.*, the patentee argued that “[r]egardless of what claim language appears in a later portion of the claim, that language should not be read into the interpretation of a separate claim element.” 419 F.3d 1326, 1331 (Fed. Cir. 2005). The Federal Circuit rejected this illogical approach to claim construction, holding that “[p]roper claim construction ... demands interpretation of the entire claim in context, not a single element in isolation.” *Id.*, quoting *Hockerson-Halberstadt, Inc. v. Converse Inc.*, 183 F.3d 1369, 1374 (Fed. Cir. 1999). Thus, Entegris proposes constructions that are consistent with the express language of the claims, themselves. Pall’s proposed constructions, which seek to construe various elements in isolation, should be disregarded.

3. The claimed connection or engagement is essentially simultaneous, not somewhat sequential

The patentees did not give “a special definition to ‘quick-connect’” that captures a somewhat sequential connection of mating connectors as Pall alleges. *See* D.I. 190 at 20-21. Instead, the ‘667 patent states in general terms that “some disposable separation modules have been designed with features that allow them to be connected quickly and easily to the fluid processing system in a ‘quick-connect’ fashion” (‘667 patent at 2:35-38).

The specification describes a preferred embodiment in which the quick connection of the connectors takes place simultaneously ('667 patent at 5:62-65) ("it is clear that the present quick-connect arrangement provides simultaneous connection and sealing of all the connectors on the top of the disposable filtration module"). Then, the patent's specification recognizes that there might be other quick-connect scenarios in which "the mating connectors were engaged somewhat sequentially." ('667 patent at 5:65-6:4)

When the patentees drafted the '667 patent's claims, defining the invention for which they sought the right to exclude, they expressly claimed that the connection or engagement is essentially *simultaneous*. Pall's proposed construction contradicts the express language of the claims. Contrary to Pall's suggestion, extraneous limitations from the patent specification that contradict the plain meaning of the claim language should not be read into the claim terms. *Comark Commc'ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1186-87 (Fed. Cir. 1998); *E.I. du Pont de Nemours & Co. v. Phillips Petroleum Co.*, 849 F.2d 1430, 1433-34 (Fed. Cir. 1988).

Moreover, as demonstrated by Dr. Nayfeh's July 30, 2010 Declaration, Entegris's proposed construction is consistent with the understanding of a person of ordinary skill in the art at the time of the invention (D.I. 193 at ¶¶50-56).

Thus, the term "quick-connect manifold" should be construed to mean "a manifold assembly for quick connection and disconnection of a disposable fluid separation module."

F. "Receptor"

The term "receptor" appears in asserted claims 2, 3, 5, 7, 8, 13, 14, 22 and 25-28 of the '667 patent and asserted claim 2 of the '424 patent. The parties' dispute regarding the term "receptor" is set forth below:

Claim Language	Entegris's Proposed Construction	Pall's Original Proposed Construction	Pall's New Proposed Construction
"receptor"	an element that receives the fluid separation module	<p>A "receptor" is an element that receives the filter capsule and may be moved relative to the fluid connector member to cause the connectors to engage and disengage.</p> <p>By the doctrine of claim differentiation, the receptor does not need to be attached to the fluid connector member. <i>See</i> '667 Patent Claim 3.</p>	<p>A "receptor" is an element that receives a module.</p> <p>By the doctrine of claim differentiation, the receptor does not need to be attached to the fluid connector member. <i>See</i> '667 Patent Claim 3.</p>

Entegris's proposed construction is consistent with the intrinsic record, affording this term its ordinary and customary meaning. Pall appears to have changed its proposed construction. In the parties' Joint Claim Chart, submitted to the Court on June 28, 2010, Pall proposed the "Original Proposed Construction" in the above chart. In its opening memorandum, Pall proposed a new construction. Entegris responds to Pall's new proposed construction herein.³ Pall's new proposed construction misrepresents the claims' language and misapplies the law.

1. The independent claims of the '667 and '424 patents expressly claim the receptor to receive a separation module

Pall argues that the term "receptor" in the asserted claims should not be limited to "only receiving a 'fluid separation module,'" but rather should be construed to "accept modules that may or may not contain a separation element" (D.I. 190 at 22). Once again, Pall's proposed construction incorrectly ignores the express language of the claims. Claim 2 of the '424 patent

³ However, Entegris reserves the right to respond to any further arguments by Pall regarding its original or any other proposed constructions.

includes “a module receptor holding the *separation module*” (emphasis added). And, each of independent claims 2, 14 and 25 of the ‘667 patent include a “module receptor receiving a disposable fluid *separation module*” (emphasis added). Thus, each of the asserted claims incorporating the term “receptor” expressly requires that the receptor receive a *separation module*.

The specifications describe embodiments including connector apparatus 40, which does not contain a separation element. But, those embodiments are not relevant to the asserted claims each of which claims a receptor that receives a separation module. The plain language of the claims requires a “separation module.” Therefore, Pall’s proposed construction contradicts the express language of the claims. As discussed above, the law does not allow such constructions. *See Pause Tech.*, 419 F.3d at 1331.

2. **The receptor is expressly claimed to be attached to the fluid connector member**

Pall asserts that “[e]xcept for claim 3 of the ‘667 patent, all the other asserted claims are silent as to whether the ‘receptor’ is attached to the fluid connector member” (D.I. 190 at 22). This is not true. Independent claims 14 and 25 of the ‘667 patent expressly claim “a module receptor *attached to* the fluid connector member” (emphasis added).

Pall’s proposed construction that “[b]y the doctrine of claim differentiation, the receptor does not need to be attached to the fluid connector member” makes no sense. Some of the claims state exactly the opposite, *i.e.*, that the module receptor is attached to the fluid connector member. The doctrine of claim differentiation cannot be used to eliminate an express element from the claims. *O.I. Corp. v. Tekmar Co. Inc.*, 115 F.3d 1576, 1582 (Fed. Cir. 1997) (“Although the doctrine of claim differentiation may at times be controlling, construction of

claims is not based solely upon the language of other claims; the doctrine cannot alter a definition that is otherwise clear from the claim language, description, and prosecution history.”).

As set forth by Dr. Nayfeh, Entegris’s proposed construction is also consistent with the understanding of a person of ordinary skill in the art at the time of the invention (D.I. 193 at ¶¶57-62). Thus, the term “receptor” should be construed to mean “an element that receives the fluid separation module.”

G. “Separation Module”, “A Separation Element Contained Within The Housing” and “A Separation Element Within The Housing”

The term “separation module” appears in all asserted claims of the ‘667 and ‘424 patents. The term “a separation element contained within the housing” appears in asserted claims 1 and 5 of the ‘424 patent. The term “a separation element within the housing” appears in asserted claim 7 of the ‘424 patent. The parties’ disputes regarding these terms are set forth below:

Claim Language	Entegris’s Proposed Construction	Pall’s Proposed Construction
“separation module”	an enclosed assembly meant to be removed and replaced as a unit including at least a housing, a separation element, and appropriate fluid connections	An assembly capable of being removed and replaced as a unit. By the doctrine of claim differentiation, there does not have to be a permanent connection between the separation element and the housing of the module. <i>See</i> ‘424 Patent Claim 13. ⁴
“a separation element contained within the housing”	plain meaning	By the doctrine of claim differentiation, there does not have to be a permanent connection between the

⁴ Pall’s opening memorandum ignores Entegris’s proposed construction of “separation module.” Because the primary dispute with this claim term appears to center around whether or not there is “a permanent connection between the separation element and the housing of the module,” Entegris wrote to Pall and suggested that it made more sense for the parties to construe the term “separation module” instead of “module” (D.I. 192 Ex. I). Pall declined to propose a construction for the term “separation module” (D.I. 192 Ex. J).

		separation element and the housing. <i>See</i> '424 Patent Claim 13.
"a separation element within the housing"	plain meaning	By the doctrine of claim differentiation, there does not have to be a permanent connection between the separation element and the housing. <i>See</i> '424 Patent Claim 13.

The primary dispute regarding this term centers around two issues: (i) the unitary nature of the separation module; and (ii) whether or not the separation element is permanently attached to the housing.

1. The "separation module" is an enclosed assembly meant to be removed and replaced as a unit

As discussed in Entegris's opening brief, the patents describe two types of fluid separation devices: (i) a reusable housing with a replaceable filter "element" or "component"; and (ii) an integrated module. The first type is never described by the patents as a "module," because it is not intended to be removed and replaced as a unit. The second type is described as an integrated module, and includes (a) a housing, (b) a separation element, and (c) appropriate fluid connections to the rest of the fluid processing system ('667 patent at 2:1-4; '424 patent at 2:4-7). Replacement of the integrated module "involves disconnecting *the entire separation module* from the fluid processing system and reconnecting *a replacement module* to the system" ('667 patent at 2:5-7 and '424 patent at 2:8-10) (emphasis added).

Pall incorrectly argues that the module does not have to be a unit (i.e., a single enclosed assembly), but rather only needs to be "capable" of being a unit (D.I. 190 at 23-24). Pall's proposed construction is a clear -- and improper -- effort to capture prior art that includes a reusable housing and a replaceable filter element. In arguing as much, Pall relies on two

excerpts from the patents' specifications regarding the capability of the module to connect to the manifold block in a quick-connect fashion (D.I. 190 at 23-24). But, these excerpts concern the connectors of the module that make it capable of connection to a manifold's. They are irrelevant to the unitary nature of the separation module.

In particular, the excerpts relied on by Pall provide:

FIG. 2 is a perspective view of disposable module 2 and a partially sectioned view of the lower portion of manifold 3, showing details of the feature that make module 2 capable of connecting to manifold block 3 in quick-connect fashion ('667 patent at 4:39-43; '424 patent at 4:53-57).

The size, shape and location of connectors 21 and flange 22 on module 2 are such as to make module 2 capable of being connected into manifold block 3 in a quick-connect fashion in conjunction with module receptor 5 ('667 patent at 4:66-5:3; '424 patent at 5:13-17).

Pall argues that because the word "capable" is used in these excerpts, "Pall's proposed construction more closely mirrors the language used in the specification" (D.I. 190 at 24). But, that makes no sense. These passages describe the size, shape and location of *the connectors* so that the module can be used to interface with a quick-connect manifold (i.e., capable of connecting). Those excerpts say nothing about whether the module must be removed as a single unit, or whether it may be removed in multiple pieces, as Pall's proposed construction suggests. As such, the excerpts are irrelevant to the parties' disputed constructions.

In contrast, the relevant portions of the specification describe the separation module as an enclosed assembly including at least a housing, a separation element, and appropriate fluid connections, and describe further that the separation module is removed and replaced as a unit ('667 patent at 2:1-12; '424 patent at 2:4-14). Thus, the relevant intrinsic record supports Entegris's proposed construction. That construction is also consistent with contemporaneous dictionary definitions and the understanding of a person of ordinary skill in the art at the time of

the invention (D.I. 193 at ¶¶63-68). Therefore, Entegris's proposed construction should be adopted by the Court.

2. The separation element is permanently attached to the housing in the “disposable fluid separation module”

Pall alleges that because dependent claim 13 of the '424 patent says “[t]he disposable fluid separation module of claim 7, wherein the separation element is permanently secured within the housing” *all* other claims of the patents do not require such a permanent attachment. Pall further alleges that “all the other claims are silent as to whether the separation element is permanently connected to the housing of the module” (D.I. 190 at 24). But, Pall's argument ignores the express definition of “disposable fluid separation module” in the patents' specifications. As explained in Entegris's opening brief, a disposable fluid separation module is necessarily one in which the separation element is permanently attached to the housing (D.I. 191 at 34-36).

The patentees expressly defined a disposable fluid separation module as “one in which the separation element is *permanently attached* to the housing” ('667 patent at 2:1-4 and '424 patent at 2:4-7) (emphasis added). When the disposable fluid separation module is replaced, the entire module (i.e., housing, separation element, and appropriate fluid connections) is removed and discarded ('667 patent at 2:12-15 and '424 patent at 2:15-18). Where the patentees chose to expressly define a term in their specification, that term should be given the patentees' expressed definition. *Phillips*, 415 F.3d at 1316; *Boss Control, Inc. v. Bombardier Inc.*, 410 F.3d 1372, 1376-77 (Fed. Cir. 2005); *SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1344-45 (Fed. Cir. 2001). The doctrine of claim differentiation cannot be used to contradict express definitions from the patent's specification. *See Kraft Foods, Inc. v. Int'l Trading Co.*, 203 F.3d 1362, 1368-69 (Fed. Cir. 2000); *O.I. Corp.*, 115 F.3d at 1582.

Where the asserted claims include a “disposable fluid separation module,” in which the separation element is necessarily permanently attached to the housing (i.e., because it is meant to be disposed of as a unit), it does not make sense to include Pall’s extraneous (and inaccurate) limitation that “[b]y the doctrine of claim differentiation, there does not have to be a permanent connection between *any* separation element and the housing” (emphasis added). Disposable fluid separation modules are defined by the patents to necessarily include a separation element permanently attached to the housing. Therefore, Entegris’s proposed construction should be adopted, and “separation module” should be construed as “an enclosed assembly meant to be removed and replaced as a unit including at least a housing, a separation element, and appropriate fluid connections”

3. The terms “a separation element contained within the housing” and “a separation element within the housing” should be given their plain meaning

Pall further asserts that, pursuant to the doctrine of claim differentiation, the “separation element within the housing” of claim 7 of the ‘424 patent does not have to have “a permanent connection between the separation element and the housing” (D.I. 190 at 27). But, independent claim 7 is directed to a “disposable fluid separation module.” As stated above, the doctrine of claim differentiation cannot be used to contradict express definitions from the patent’s specification. *See Kraft Foods*, 203 F.3d at 1368-69; *O.I. Corp.*, 115 F.3d at 1582. Therefore, the disposable fluid separation module of claim 7 will necessarily include a separation element permanently attached to the housing.

Pall’s proposal to ignore the patent’s express definition of “disposable fluid separation module” must be dismissed out of hand. Moreover, one element of the claimed disposable fluid separation module of claim 7 is the “separation element within the housing.” That term is

readily understood by a person of ordinary skill in the art at the time of the invention, and it should therefore be given its plain and ordinary meaning (D.I. 193 at ¶69).

Additionally, Pall argues that pursuant to the doctrine of claim differentiation, the “separation element contained within the housing” of the claimed “separation module[s]” of ‘424 patent claims 1 and 5 “do not have to be permanently contained within the housing” (D.I. 190 at 27). But, Pall bases its argument on dependent claim 13, which depends from independent claim 7 -- not independent claims 1 and 5. In general, claim differentiation applies to an independent claim and its own dependent claims. *See Karlin Tech. Inc. v. Surgical Dynamics, Inc.*, 177 F.3d 968, 971-72 (Fed. Cir. 1999) (“This doctrine [of claim differentiation] . . . normally means that limitations stated in dependent claims are not to be read into the independent claim from which they depend.”) (citations omitted). Moreover, this claim term is readily understood without reading in limitations based on an unrelated dependant claim -- it simply expresses that there is a separation element contained within the housing of the claimed separation module. The term is readily understood by a person of ordinary skill in the art at the time of the invention, and it should be given its plain meaning.

Thus, the terms “separation module”, “a separation element contained within the housing”, and “a separation element within the housing” should be construed as set forth in Entegris’s proposed constructions above.

H. “Semiconductor Process Fluid” and “Semiconductor Process Fluid Comprises At Least One Of A Photochemical, A Primer, An Adhesion Promoter, A Photoresist, An Edge Bead Remover, An Antireflective Coating, A Developer, And A Dielectric”

In a July 29, 2010 letter, Pall stated that it “no longer seeks construction of these terms by the Court,” and Pall omitted these terms from its opening memorandum. In the parties’ Joint Claim Chart, Pall asserted that these terms are “not [] effective field of use limitation[s]”

(D.I. 181 at 6). Entegris addressed Pall's erroneous originally proposed construction in its opening claim construction brief. Assuming Pall now agrees with Entegris that these terms should be given their plain meaning, then these terms can be withdrawn as disputed terms for the Court's construction.

IV. PALL'S ALTERATIONS TO THE PARTIES' AGREED-UPON CONSTRUCTIONS SHOULD BE DISREGARDED

In the parties' Joint Claim Chart, submitted on June 28, 2010, the parties agreed on the construction of six terms (D.I. 181 at 2-3). Now, in its opening memorandum, Pall has added extraneous language to the constructions of three of those terms. For the terms "vertical direction," "vertical movement," and "horizontal direction," Pall has included alleged "examples" from the patents' figures (D.I. 190 at 10-11). This is a clear attempt by Pall to have the Court unknowingly endorse a noninfringement or invalidity position that Pall has yet to articulate. Entegris objects to the inclusion of Pall's "examples" in the agreed-upon construction of these terms.

If Pall wanted those examples included in the agreed-upon construction, it should have included those examples in the negotiations leading up to the parties' Joint Claim Chart. Pall should not be permitted to undo the parties' agreement.

V. CONCLUSION

In view of the foregoing, Entegris respectfully submits that the Court should adopt its proposed claim constructions for the disputed terms of the '907, '667, and '424 patents and reject Pall's proposed constructions.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that, on September 1, 2010, true and correct copies of Plaintiff Entegris, Inc.'s Responsive Claim Construction Brief filed through ECF will be sent electronically to counsel for the Defendant Pall Corporation who are registered participants as identified on the Notice of Electronic Filing. A courtesy copy will be sent by the following means:

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